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AUTHOR Knoell, Dorothy M.
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ABSTRACT

A summary is provided of the final report of the California Statewide Longitudinal Study (SLS) of community college students. Chapter 1 provides background to the study; its methodology; and the characteristics of students in the study sample in terms of age, sex, ethnicity, educational and employment history, original college goals, disadvantages, and enrollment patterns. Chapter 2 describes the various prototypes developed in the course of the study: (1) transfer prototypes, including the full-time transfer, the part-time transfer, the undisciplined transfer, the technical transfer, the intercollegiate athlete, and the expediter; (2) vocational prototypes, including the program completer, the job seeker, the job up-grader, the career changer, and the license maintainer; and (3) special interest prototypes, including the leisure skills students, the education seeker, the art and culture student, the explorer/experimenter, the basic skills student, and the lateral transfer. Chapters 3, 4, and 5 present detailed information about the students within each of the three major prototype categories, covering personal characteristics, educational and employment history, enrollment patterns, and effects of the college experience. Chapter 6 contains a summary of the principal investigator's conclusions about each of the major student prototypes and discusses general study findings and their implications. A summary of the results of an earlier longitudinal study is appended. (HB)

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SUMMARY OF THE FINAL REPORT OF THE STATEWIDE LONGITUDINAL STUDY OF COMMUNITY COLLEGE STUDENTS

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CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
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SEPTEMBER 20, 1982
TAB 16

BRIEF

INFORMATION ITEM: Summary of the Final Report of the Statewide Longitudinal Study of Community College Students

SUMMARY:

This item informs the Commission about the results of the Statewide Longitudinal Study which was conducted between 1978 and 1981 by a consortium of 15 California Community Colleges with a grant of federal funds administered by the Chancellor's Office. The major purpose of the study was to find better ways of describing present-day Community Colleges than have been in use in the past. This purpose was achieved by developing a series of student prototypes around which the research findings were organized.

A summary of the results of an earlier longitudinal study of Community College students which the Commission conducted for the Legislature appears in the Appendix.

Responsible staff: Dorothy M. Knoell.

CONTENTS

		Page
ONE:	THE STUDY AND THE STUDENTS	1
	Background	1
	Methodology	2
	Characteristics of the Sample Students	4
	Structure of the Remaining Chapters	7
TWO:	STUDENT PROTOTYPES	9
	Transfer Prototypes	9
	Vocational Prototypes	11
	Special Interest Prototypes	12
THREE:	THE TRANSFER FUNCTION	15
	Personal Characteristics	15
	Educational History	16
	Employment History	17
	Enrollment Patterns	18
	Effects of the College Experience	20
FOUR:	THE VOCATIONAL FUNCTION	21
	Personal Characteristics	21
	Educational History	23
	Employment History	24
	Enrollment Patterns	26
	Effects of the College Experience	28
FIVE:	THE SPECIAL INTEREST FUNCTION	33
	Personal Characteristics	33
	Educational History	35
	Employment History	37
	Enrollment Patterns	38
	Effects of the College Experience	41
SIX:	INTERPRETATION OF FINDINGS AND CONCLUSIONS	43
	Data Problems	43
	Findings About the Transfer Function	44
	Findings About the Vocational Function	44
	Findings About the Special Interest Function	45
	Other Findings	45
	Conclusion	46
APPENDIX:	Summary of Major Findings from *Through the Open Door: A Study of Patterns of Enrollment and Performance in California's Community Colleges*	47
REFERENCES		53

TABLES

PAGE

1. Personal Characteristics of the Transfer Prototypes . . 15

2. Educational Backgrounds of the Transfer Prototypes. . . 17

3. Enrollment Patterns of the Transfer Prototypes. 18

4. Personal Characteristics of the Vocational Prototypes . 21

5. Educational Backgrounds of the Vocational Prototypes. . 23

6. Employment Experience of the Vocational Prototypes. . . 25

7. Enrollment Patterns of the Vocational Prototypes. . . . 27

8. Changes in the Occupational Status of Vocational Prototype Students, Fall 1978 to 1980-81. 30

9. Personal Characteristics of the Special Interest Prototypes. 34

10. Educational Backgrounds of the Special Interest Prototypes. 36

11. Employment Experiences of the Special Interest Prototypes. 38

12. Enrollment Patterns of the Special Interest Prototypes. 39

CHAPTER ONE

THE STUDY AND THE STUDENTS

BACKGROUND

The Statewide Longitudinal Study (SLS) was a cooperative research project involving a consortium of 15 California Community Colleges, funded in 1978 by the Community College Chancellor's Office under Subpart 3 of the federal Vocational Education Art and ending in 1982. The project was administered by Los Angeles Pierce College, with M. Stephen Sheldon serving as Project Director and Russell Hunter as Project Administrator. Commission staff served on the Consortium Advisory Committee during the second half of the project and contributed one of a series of analytical papers based on data obtained in the project (Knoell, 1982). Four project reports were published during the course of the study (Hunter and Sheldon, undated), in addition to the final report which appeared in the summer of 1982 (Sheldon, undated).

The major goals of the study included the provision of detailed information about students in the California Community Colleges and the effects of college programs on the lives of the students. In addition, the study was designed to provide information on factors inhibiting the enrollment of Limited- and Non-English-Speaking students in certain vocational programs, and assistance in identifying needed curriculum and services for certain kinds of disadvantaged students in vocational education programs (ibid., p. 1-4). Near the end of the study, the following goal was added (ibid., p. 1-29):

> To develop and validate student prototypes that are based on students' aspirations, enrollment patterns, and achievements. These prototypes should permit a realistic description of the mission and function of California Community Colleges.

As the study progressed, the prototypes became as important as the empirical findings about students who were enrolled in the late 1970s, because of their potential usefulness in both monitoring and shaping changes in the colleges' missions and functions in the future.

A precursor of the Statewide Longitudinal Study was a Commission study completed in 1976--Through the Open Door: A Study of Patterns of Enrollment and Performance in California's Community

Colleges (California Postsecondary Education Commission, 1976). Undertaken in response to special legislation in 1972, the Commission study was designed to produce a better understanding of the very diverse nature of the colleges' students, programs and services, and related mission and functions in the 1970s by studying both students and institutions during a three and one-half year period. A summary of the major findings appears in the Appendix on pp. 47-52.

METHODOLOGY

The 15 colleges selected to participate in the study were representative of the total population of California Community Colleges in terms of geography, rural-urban factors, and social class and ethnicity of the students. This sample of colleges, ranging from northern to southern California, included Shasta, Contra Costa, Evergreen Valley, Foothill, Sacramento, Bakersfield, Los Angeles City, Los Angeles Pierce, El Camino, Cerritos, Santa Ana, Golden West, Antelope Valley, Imperial Valley, and Southwestern.

Each college selected a random sample of students from those who enrolled at that institution for the first time in Fall 1978. The size of each sample was determined on the basis of reducing the standard error to 4 percent, that is, to a level which would permit generalizations to be made with a relatively high degree of confidence with respect to sampling errors. The initial samples included varying numbers of students who were admitted but never registered, registered but never attended, and attended but dropped all classes before the first census week. More than 1,100 such students were interviewed by telephone during the fall semester to get information about the reasons for their non-attendance before being dropped from further study. The remaining 6,490 students were enrolled in at least one course at the first census and were considered the sample students for most analyses of data (ibid., p. 2-10). This number is smaller than numbers reported at various stages of the study because of a decision the study director made after the final data collection had taken place, that students should be dropped who did not complete at least one usable interview, were not assigned to a prototype, or did not have information available for at least two of the three demographic variables--age, sex, and ethnicity.

The two sources of data for the study were college records and structured telephone interviews, the latter conducted each semester with most sample students. The interviews yielded information about the students' previous education, family background, disabili-

ties or disadvantaged conditions, goals, work history, attendance pattern, vocational/nonvocational status, opinions about college services and goal attainment, and other biographical variables. In addition, different kinds of information were obtained from students whose intent was to transfer, learn vocational skills, or pursue personal interests. Before each interview, the interviewer reviewed the student's file, filled in data from college records, and became familiar with the student's responses in previous interviews. Interviewers were trained by the local project coordinator and provided with interview guides, data sheets, and manuals containing definitions of response categories for the interview questions. The project directors were satisfied that the response rate for the telephone interviews was considerably higher than is usually obtained for mailed questionnaires, and thus the responding sample more likely to be representative of the population (ibid., p. 2-18).

The first four reports of the study contain the following types of analysis:

1. Comparison of the study with the population of California Community College students;

2. Descriptions of demographic characteristics, employment history, and academic experiences of the sample students;

3. Comparison of vocational with nonvocational sample students;

4. Comparison of day and evening students;

5. Comparison of attending and nonattending sample students;

6. Analysis of demographic and other characteristics of seven special groups of students with particular types of disadvantage or disability; and

7. Description of the sample in terms of the prototypes developed during the study.

The final report describes in considerable detail the findings about the students assigned to each of the three functional prototypes--transfer, vocational, and special interest. It also presents conclusions about the impact of the Community Colleges on the lives of the students and thus the success of these institutions in performing their functions and carrying out their missions.

CHARACTERISTICS OF THE SAMPLE STUDENTS

The age, sex, and ethnicity of students in the sample was compared with the total California Community College population in fall 1978, rather than first-time students, because of the heavy workload which would have been required to isolate the characteristics of first-time students. The result, as expected, was that the sample students were younger than the population as a whole. The mean and median ages of the sample students were 26.0 and 22.0, respectively, compared with 29.0 and 25.0 for the total population, while the modal age was 18 for each. The sample corresponded closely to the total population with respect to percentages of men and women, with 44.5 percent of the sample male and 55.5 percent female, compared with 46 and 54 percent for all Community College students in Fall 1978. In terms of ethnicity, the percentage distributions were also very similar when the 11.2 percent "unknown" in the population was assigned proportionately to each ethnic group. About 31 percent of the sample claimed minority group membership, including 13 percent Hispanic, 8 percent Black, 7 percent Asian, 1 percent American Indian, and 2 percent "other" (ibid., p. 3-6).

Educational History

The study sample included first-time students with varying amounts of work at other postsecondary institutions, as well as first-time freshmen and high school dropouts. Sixty-five percent of the sample had last attended high school, including adult night school and Regional Occupational Centers or Programs, while 7.5 percent had not graduated from high school. Eighteen percent had attended another Community College and 13 percent a four-year college or university. Four percent reported "other." Seventy-eight percent of the students assigned to the transfer prototypes last attended high school, compared with 57 percent of the vocational and 49 percent of the special interest students. Forty-two percent of the latter group and 35 percent of the vocational students had last attended a collegiate institution, compared with 20 percent of the transfer students (ibid., p. 3-6).

Students assigned to the three prototype groups differed significantly with respect to their previous level of educational achievement. Only 18 percent of the transfer students had attended college previously, compared to 44 percent of the special interest students and 35 percent of the vocational students who reported some previous college achievement, including 13 and 8 percent of the latter groups, respectively, who had earned at least a bachelor's degree before enrolling in the Community Colleges in 1978. The largest percentage of high school dropouts were in the special interest prototypes (ibid., p. 3-8).

Another interview question elicited information about any break in enrollment before Fall 1978. Forty-six percent of the sample students said that there had been no break between the last institution attended and the Community College, while 15 percent said that they had been out of school or college for at least 12 years.

Employment History

Before Fall 1978, 42 percent of the sample had been full-time students and 36 percent had been employed full time. Only 13 percent were neither employed nor enrolled at least part time. Stated another way, almost two-thirds of the students had been employed at least part time before enrolling in Fall 1978, and 52 percent had been enrolled elsewhere at least part time. About 45 percent of the vocational and special interest students held full-time jobs, while 64 percent of the transfer students were enrolled full time, usually in high school (ibid., p. 3-13).

The level of occupation at which the sample students had been employed during their first term correlated significantly with the prototype to which they were later assigned. Overall, 64 percent of those who had been employed said that their jobs were at the unskilled or semi-skilled level, 26 percent at the skilled level, and 9 percent at the professional or supervisory level. The prototypes differed significantly with respect to the levels of jobs held, with 80 percent of the employed transfer students working in unskilled or semiskilled jobs, compared with 57 percent of the vocational and 54 percent of the special interest students. Conversely, 17 percent of the special interest students had been employed at the professional or supervisory level, compared with 3 percent of the transfer and 10 percent of the vocational students (ibid., p. 3-14).

Original College Goals

In the Fall 1978 interviews, students were asked about their major reasons for enrolling, with responses coded into the categories of preparation for transfer, preemployment training, in-service training, retraining, and self-enrichment Thirty-seven percent of the sample students said preparation for transfer; 35 percent, preemployment training; 30 percent, self-enrichment; 11 percent, in-service training; and 3 percent, retraining. Students were permitted to give more than one reason but the total percent was only 115. While the percentages indicating transfer and self-enrichment are quite similar to the percentages of students assigned later to the transfer and special interest prototypes, students in each prototype gave various reasons for enrolling. For example,

about one-third of the students in the transfer and special interest prototypes gave employment-related reasons for enrolling, and 21 percent of the vocational prototype students said that self-enrichment was a major reason for enrolling (ibid., p. 3-12).

Disadvantages

In the first-semester interviews, 17 percent of the students said that money would be a problem while they were enrolled, and 17 percent said that they would need "special help with things like math or reading." These conditions were called financial and educational disadvantages by the project investigators (ibid., pp. 3-10, 11). Differences among the three prototypes were small with respect to the percentages reporting these disadvantages.

Enrollment Patterns

Thirty percent of the students were enrolled for only the first term, including 49 percent of the special interest students, 33 percent of the vocational students, and 13 percent of the transfer students. Half of the total sample was enrolled in continuous attendance for at least two terms, including 66 percent of the transfer students, 48 percent of the vocational students, and 32 percent of the special interest students. About 20 percent of the students in each prototype were enrolled intermittently during the study. The most prevalent pattern for the transfer students was enrollment from four to six terms, while "first term only" was the most prevalent pattern for vocational and special interest students (ibid., p. 3-16).

Fifty percent of the students enrolled exclusively in day classes, 36 percent in evening classes, and 14 percent in both day and evening classes during their first term. Two-thirds of the transfer students enrolled in day classes only, while 52 percent of the special interest and 45 percent of the vocational students enrolled only in the evening (ibid., p. 3-19).

Judgments were made about the students' majors in Fall 1978, using a technique called the Student Accountability Model (SAM) which classifies students on the basis of the types of courses in which they are enrolled. The largest percentages of the students were found to be enrolled in Business and Management (24 percent), General Transfer (24 percent), and Personal Interest courses (17 percent). Almost 60 percent were enrolled in one or more vocational courses, including 47 percent of the transfer students, 43 percent of the special interest students, and 81 percent of the vocational students. Forty-five percent of the transfer prototype

students were enrolled in General Transfer majors, while 41 percent of the special interest prototype students were in personal interest courses (ibid., p. 3-21).

STRUCTURE OF THE REMAINING CHAPTERS

The second chapter of this summary describes the various prototypes developed in the course of the study, with minimum attention given to statistical findings. The reason for presenting the material in this manner is the value of the prototypes in describing the functions of the California Community Colleges, irrespective of the percentages of students assigned to them at any point in time or in any particular institution or district.

Chapters Three, Four, and Five present detailed information about the students in each of the three major prototypes--who they are and why they came, their enrollment patterns and academic achievement, and the effects of their Community College experience. The sixth and final chapter contains a summary of the principal investigator's conclusions from the study.

CHAPTER TWO

STUDENT PROTOTYPES

Having concluded that the California Community Colleges cannot be described adequately in terms of their courses and curricula, the Statewide Longitudinal Study investigators approached the problem of defining the colleges' mission by developing a series of 18 student prototypes related to the transfer, vocational, and special interest functions. The process involved having the study coordinator at each college determine the most prevalent type of course taken by each student in the sample--general education, vocational skill, culture, artistic skill, physical education skill, personal development, or basic skills. The coordinator then took into account the student's aspirations, course enrollment and completion pattern, grades, age, type of job held and hourly wage earned, and responses to early interview questions in assigning him or her to a prototype. The development of the prototypes was an iterative process which began in the first year and continued throughout the study, with students assigned to prototypes near the end.

While the coordinators at the participating colleges made the decisions about the prototypes in which their students fit best, they indicated their degree of confidence in the assignment on a three-point scale. Overall, they felt "very comfortable" in 58 percent of the cases, "moderately comfortable" in 30 percent, and "uncomfortable" in 12 percent, with fewer than 2 percent of the students unassignable. Reliability studies showed about 85 percent agreement between coordinators making the assignments. When the students were asked about the goodness of the fit, 88 percent agreed with the description of the prototype to which they had been assigned, 7 percent disagreed, and 5 percent said that the prototype fit them at the time that the assignment had been made but that their goals had changed since then.

Eighteen prototypes were developed within the three major functions--transfer, vocational, and special interest. (The descriptions of the prototypes are quoted from pp. 1-30 through 1-34 of the Final Report, together with the percentage of the students in the study sample assigned to each prototype from page 2-27.)

TRANSFER PROTOTYPES (37.0 PERCENT)

1. The Full-Time Transfer (10.6 percent): This group represents both those who are eligible from high school to attend a senior institution and those who just missed

eligibility. These students enroll in four or more courses and maintain a reasonable grade point average. They have a high probability of transferring after one to six semesters.

2. The Part-Time Transfer (7.7 percent): This group is slightly older than the full-time [transfer] student and is enrolled in three or fewer courses, frequently in the evening classes. They maintain a reasonable grade point average, but have slightly less chance of following through with their plans to transfer to a senior college than the full-time transfer.

3. The Undisciplined Transfer (9.3 percent): This group aspires to transfer, but the probability of their doing so is slight. They lack either the academic skills to complete their work or the self-discipline to follow through on their studies and homework.

4. The Technical Transfer (7.7 percent): This group is indistinguishable from the full- or part-time transfer student other than that they enroll in, and complete, a sequence of courses in a vocational area. The major is of relatively high status and technical (for example, accounting, business, computer sciences, engineering, or architecture). The Technical Transfer Student is frequently mistaken for a Vocational Student and, in any reasonable world of post-secondary education is, in fact, a Vocational Student.

5. The Intercollegiate Athlete (0.7 percent): These are full-time students and indistinguishable from the Undisciplined Transfer Students other than their prime motive is to participate in the intercollegiate athletics program. Obviously, not all community college athletes fit in this category; only those that lack the discipline to achieve their transfer goals.

6. The Financial Support Seeker (0.3 percent): This group, also, is indistinguishable in enrollment patterns and achievements from the Undisciplined Transfer Student. However, the real intent of this group is only to obtain financial aid. Few financial aid students fall into this group; only those that are more interested in obtaining money than in learning.

7. The Expediter (0.7 percent): These are students whose main academic affiliation is with a senior college but find it more convenient to take one or two courses at the

community college. During the summer there are many such students.

VOCATIONAL PROTOTYPES (35.5 PERCENT)

8. The Program Completer (5.7 percent): These students enroll in, and expect to complete, a specified program in vocational education; usually either a two-year associate degree or a one-year certificate program. Most of the students expecting to complete the associate degree spend more than two years in achieving their goals; this because of prerequisites to the programs or the scheduling difficulties in enrolling in the required courses.

9. The Job Seeker (13.5 percent): These students, at least nominally, attend college only long enough to learn vocational skills that will permit them to obtain a semi-skilled to highly-skilled job. Again, nominally they are less concerned with earning good grades or getting credits for courses than in earning money as quickly as possible. There is some indication that this group contains a significant number of persons that lack the prerequisite skills, either academic or vocational, to complete a vocational program, and as a consequence, fall into a category analogous to the Undisciplined Transfer Student. (See number 3, above.)

10. The Job Up-Grader (12.3 percent): These students, when admitted to the college, are already working in the field in which they take courses. They attend classes to improve their present skills or learn new, complementary skills; seeking raises, promotions or recognition. They are significantly older than the sample as a whole.

11. The Career Changer (3.3 percent): These students are employed, but wish to learn new job skills either to change careers or to supplement their incomes by obtaining an extra job for nights or weekends. They are older than the overall student body, enroll in one or two courses at a time, and are primarily evening students.

12. The License Maintainer (0.7 percent): Many careers that necessitate state licensing or certification (for example, registered nurses) require a specified number of hours of instruction on a regular basis to maintain the license. These persons frequently take community college classes to fulfill this requirement.

SPECIAL INTEREST PROTOTYPES (27.5 PERCENT)

13. The Leisure Skills Student (12.4 percent): These students are concerned with learning specific skills to pursue their hobbies. The courses they take may be in the vocational area, for example, carpentry or photography; an individual sports area, for example, racquetball or golf; or an aesthetic area, for example, drawing or instrumental music. They are older than the group as a whole and most are enrolled in evening courses.

14. The Education Seeker (6.3 percent): A significant number of adults in California feel a vague discomfort if they are not enrolled in at least one reasonably academic course. They may have already earned advanced degrees, but they will still take an academic course on a regular basis, for example, anthropology, history or Spanish. They are the personification of the University of California Extension's motto, "lifelong learning."

15. The Art and Culture Student (1.0 percent): This relatively small group seeks cultural experiences. They take courses in art or music appreciation or humanities courses that include attendance at concerts or theaters. They are frequently older or retired people, and few care about earning college credits.

16. The Explorer/Experimenter (4.0 percent): This group of students attends community college primarily to study themselves. They are exploring avenues of potential employment or desire a continuation of their education. Some take courses in psychology and personal development; others enroll in diverse subject matter courses, for example, one course in accounting and one in philosophy. They are usually part-time students, frequently women in the mid- to late-thirties.

17. The Basic Skills Student (2.9 percent): These students attend college to improve basic academic skills. Many are recent immigrants whose primary goal is to learn or improve their English. Others are recent high school graduates who wish to improve their basic language and math skills before pursuing an academic career.

18. The Lateral Transfer (0.8 percent): These students are taking courses prior to transferring to another institution other than a baccalaureate-granting college. The prerequisites they take are frequently for a vocational program offered elsewhere.

The development and validation of these student prototypes were not among the original goals of the Statewide Longitudinal Study but evolved during the analysis of data collected during the study. In the final report, the prototypes were used as the primary framework within which the findings and conclusions were discussed. Their major categories provide the structure for the next three chapters.

CHAPTER THREE

THE TRANSFER FUNCTION

Because of the small numbers of students assigned to some transfer prototypes, the seven were combined into four major groups--Full Time, Technical, Part Time (including Expediter), and Undisciplined (including Intercollegiate Athlete and Financial Support Seeker), for purposes of analysis.

PERSONAL CHARACTERISTICS

Summary information about the personal characteristics of the transfer prototypes appears in Table 1, beginning with the percentage of transfers in each.

Male/Female Ratio: The numbers of men and women in the combined transfer prototypes were about equal, although the total sample

TABLE 1 Personal Characteristics of the Transfer Prototypes

Characteristics	Prototype: Full Time	Tech-nical	Part Time	Undisci-plined	Total
Percent in Group*	29%	21%	22%	28%	100%
Male/Female Ratio	49/51	53/47	47/53	50/50	50/50
Mean Age	20	21	22	20	21
Percent Under 20	82	68	58	72	71
Percent 30 and over	5	8	11	5	7
Percent Ethnicity:					
White	75	64	70	61	68
Black or Hispanic	15	23	21	29	22
Asian	8	10	8	7	8
Percent Disadvantaged:					
Financial	15	21	18	23	19
Educational	17	15	18	24	19

*Transfer prototypes comprise 37 percent of the total sample students.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 4.

contained more women than men (56 and 44 percent, respectively). The relatively small number of women in the Technical Transfer group had the effect of reducing their overall representation among the transfers.

Age: As a group, transfer students tended to be younger at entrance than students in the vocational and special interest prototypes. Although the mean ages of the students in the various transfer prototypes are quite similar, the groups differ significantly with respect to the percentages under 20 years of age--from 82 percent for the Full-Time Transfers to 58 percent for the Part-Time group.

Ethnicity: The transfer prototypes also differ with respect to ethnicity. Whites were most likely to be Full-Time Transfers and least likely to be in the Undisciplined group. Asians, on the other hand, were somewhat more likely to be assigned to the Technical Transfer group, while Blacks and Hispanics were most likely to be in the Undisciplined Transfer prototype. Although ethnic minorities comprised 32 percent of the combined transfer groups, they accounted for only 25 percent of the Full-Time Transfer prototype, which is said to have the highest probability of transferring.

Disadvantages: The Undisciplined prototype had the largest reported percentages of financially and educationally disadvantaged students when they enrolled in 1978 (23 and 24 percent, respectively, compared with 19 percent for the combined transfer groups).

EDUCATIONAL HISTORY

Information about the educational histories of students in the transfer prototypes is summarized in Table 2.

Previous Attainment: As might have been expected, a large majority of the students in the transfer prototypes had no more than a high school education and last attended some kind of secondary school, often without a break between high school and Community College. Students assigned to the Full-Time Transfer prototype were most likely to fit this description while those in the Part-Time group were least likely to do so. About 1 percent of the combined transfer groups held a baccalaureate or higher degree in Fall 1978.

Reasons for Attending: It is not surprising that almost three-fourths of the transfer prototype students said that preparation for transfer was a major reason for attending the Community College in Fall 1978. The large number saying "preemployment training" is not inconsistent with the transfer goal since students may have chosen occupations requiring a baccalaureate or higher degree. However, the incidence of Undisciplined Transfers with self-enrich-

ment goals in Fall 1978 may be viewed as further evidence of the improbability of their transferring to complete a baccalaureate degree.

EMPLOYMENT HISTORY

The employment history of the transfer prototypes appears to be more limited than that of the vocational and special interest groups, which is not surprising, given their age and recent high school graduation. Only 20 percent of the combined transfer groups held full-time jobs before enrolling in Fall 1978, and 39 percent were not employed.

TABLE 2 Educational Backgrounds of the Transfer Prototypes

Variable	Prototype: Full Time	Tech-nical	Part Time	Undisci-plined	Total
Last School Attended:					
High School	84%	74%	65%	78%	76%
Other Community College	8	14	16	12	12
Four-Year College	5	7	15	5	8
Highest Level Attained:					
High School Diploma	81	73	62	74	73
Some College	15	22	29	16	20
BA or Higher	0	<1	4	<1	<1
Original Goal:*					
Transfer	80	67	73	69	73
Pre-Employment Training	26	35	23	27	28
Inservice Training	3	6	3	<1	3
Retraining	<1	<1	2	<1	1
Self-Enrichment	8	8	11	15	11

*Students were allowed to list more than one goal.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 4.

ENROLLMENT PATTERNS

A summary of enrollment information for the transfer student prototypes beginning in Fall 1978 appears in Table 3. As can be seen, the four transfer prototypes differed significantly with respect to their enrollment patterns.

Length of Enrollment: Fewer than three-fourths of the Undisciplined Transfers enrolled beyond the Fall 1978 term during the three years of the study, compared with 96 percent of the Full-Time Transfers

TABLE 3 Enrollment Patterns of the Transfer Prototypes

Variable	Prototype				
	Full Time	Technical	Part Time	Undisciplined	Total
Length of Enrollment:					
First Term Only	4%	6%	14%	27%	13%
First Two Terms Only	13	12	19	20	16
Two Years Only	26	17	8	7	15
Three Full Years	25	23	14	9	18
At Least Two Consecutive Terms	84	74	56	50	66
Intermittent Enrollment	13	21	30	22	21
Day Classes Only	76	63	61	67	67
Original Major:					
General Transfer	49	35	47	48	46
Business/Management	20	25	19	19	21
Other Occupational	23	34	22	24	25
Personal Interest	8	6	12	9	8
Mean Number of Courses Passed	18.5	14.4	9.1	5.9	12.0
Mean Number of Units Earned	49.1	38.5	25.5	14.7	32.0
Grade-Point Average:					
Percent Above C (2.1)	94	86	86	46	79
Percent D and Below	<1	<1	1	16	5

Source: Adapted from the SLS Final Report, 1978-81, Chapter 4.

and 94 percent of the Technical Transfers. As might be expected, the Part-Time Transfers showed some tendency to enroll intermittently. Only 50 percent of the Undisciplined Transfers enrolled for as many as two consecutive semesters during the three-year study, and only 16 percent completed two or three full years, compared with 51 percent of the Full-Time and 40 percent of the Technical Transfer prototypes.

Time of Enrollment: About two-thirds of the combined transfer groups were enrolled in day classes only, with the highest percentage (76) found among the Full-Time Transfers and the lowest (61) among the Part-Time group.

Original Major: Somewhat fewer than half of each of the transfer prototypes were found to have General Transfer majors in Fall 1978. The second most frequent major found for these groups was Business and Management (21 percent of the combined transfer groups). About 8 percent had personal interest majors in the first term, including 12 percent of the Part-Time group. The remaining students were distributed among a wide range of majors which might provide preemployment training, the most popular of which was Engineering and related fields.

Achievement: The four transfer prototypes also differed significantly with respect to courses passed, units earned, and grade-point averages during the course of the study. As might be expected, the Full-Time Transfers had the best record of achievement and the Undisciplined Transfers the poorest. However, none of the four groups' mean total number of units earned during the three years was as high as the number required for an Associate Degree or to transfer, at least in the case of students not eligible for freshman admission to the University of California or the California State University on the basis of their high school records. About 36 percent of the Full-Time and 22 percent of the Technical Transfer students had earned more than 60 units by the end of the study, although some of these units might not be regarded as baccalaureate-level work by the institutions to which they might transfer.

Finally, the grades earned by the transfer prototype students appear for the most part to be passing, except for a high incidence of unsatisfactory grades awarded to Undisciplined Transfers. Some students in this particular prototype may have withdrawn from classes improperly, and thus have been given a failing grade. (Note: No mean or median grade-point averages were reported, nor was it possible to compute percentages of students with averages below C because of the nature of the distribution of grades presented in the report.)

EFFECTS OF THE COLLEGE EXPERIENCE

Percentages Transferring: Transfer to a baccalaureate-granting institution is a major criterion for judging the effectiveness of the Community Colleges in helping students to transfer. However, the extended Community College enrollment beyond the third year of about 30 percent of the students in the transfer prototypes, together with problems encountered in reaching some former students for interviews during the final phase of the study, has limited the use of this criterion in the study. By the end of the study, 19 percent of the students in the combined transfer groups said that they had transferred to a four-year college or university. Percentages of students who said that they had transferred varied widely across the transfer prototypes, from 32 percent of the Full-Time Transfers to 8 percent of the Undisciplined Transfers, with 16 and 19 percent for the Technical and Part-Time groups, respectively.

An additional 25 percent of the students in the transfer prototypes said during the third year of the study, while they were still at the Community College, that they planned to transfer, more than half of them within one or two semesters. Sixty-one percent of them expected to transfer to the State University and 12 percent to the University of California, while the remainder were still uncertain (17 percent) or expected to transfer to another type of institution.

More than 450 former students who were not enrolled in 1980-81 (about 19% of the total transfer prototypes) were also interviewed about their plans to transfer. Fifty-five percent of this group (or 10% of the total transfer prototypes) named colleges and universities to which they said that they intended to transfer. The major deterrent to transfer that they reported was preference for the job they held, followed by finances. Fourteen percent said that they had changed their goal away from transfer (ibid., pp. 4-33, 34).

Feedback From Transfers: More than 300 students who had transferred were interviewed about their post-transfer experiences. Sixty-nine percent said that their major at the four-year college or university was the same as or related to their Community College major. Sixty percent said that their grade-point averages were better than C (2.1), but 36 percent were unsure of their grades. About two-thirds of the transfers said in essence that they were well prepared for university work, 24 percent said "moderately well-prepared," and only 8 percent said "poorly prepared" (ibid., p. 4-32).

CHAPTER FOUR

THE VOCATIONAL FUNCTION

For purposes of detailed analysis of the vocational prototype data, the License Maintainer prototype, with less than 1 percent of the total sample students assigned to it, was combined with Career Changers. Student characteristics, achievements, and outcomes were then described in the Final Report for four vocational prototypes--Program Completer, Job Seeker, Job Up-Grader, and Career Changer.

PERSONAL CHARACTERISTICS

Summary information about the personal characteristics of the students assigned to these vocational prototypes appears in Table 4, together with the percentage of students in each prototype.

TABLE 4 Personal Characteristics of the Vocational Prototypes

Characteristics	Prototype: Program Completer	Job Seeker	Job Up-Grader	Career Changer	Total
Percent in Group*	16%	38%	37%	9%	100%
Male/Female Ratio	40/60	35/65	46/54	54/46	41/59
Mean Age	22	23	31	33	27
Percent Under 20	57	53	17	12	36
Percent 30 and Over	14	15	48	59	31
Percent Ethnicity:					
White	69	65	75	67	70
Black or Hispanic	23	27	17	22	22
Asian	7	6	5	10	6
Percent Disadvantaged:					
Financial	22	21	10	12	17
Educational	17	17	13	13	15

*Vocational prototypes comprise 36 percent of the total sample of students.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 5.

Distribution of students among the four prototypes was very uneven, with almost 40 percent each in the Job Seeker and Job Up-Grader categories, but only 16 percent in the Program Completer and 9 percent in the Career Changer categories. Thus a large majority of the vocational students (more than 80 percent) may not be expected to complete degree and certificate programs with vocational majors.

Male/Female Ratio: Women predominate in three of the four vocational prototypes and in the combined groups. Their proportions are largest in the Program Completer (60 percent) and Job Seeker (65 percent) categories, and smallest in the Career Changer category (46 percent), which is by far the smallest of the four vocational prototypes.

Age: The mean age of students in the combined vocational groups is significantly higher than that found for the transfer prototypes, and percentages under the age of 20 at entrance are signficantly smaller for all vocational prototypes. However, there are significant differences among the four vocational prototypes with respect to age, with students in the Job Up-Grader and Career Changer groups generally older than those in the Program Completer and Job Seeker prototypes.

Ethnicity: The ethnic distribution of the students in the combined vocational prototypes does not differ significantly from that of the combined transfer prototypes but there were differences among the four vocational prototypes. The largest percentage of white students is in the Job Up-Grader prototype and the lowest in the Job Seeker. For Hispanics, however, the largest percentage is in the Program Completer prototype and the smallest in the Job Up-Grader. Blacks displayed still another pattern, with the largest percentage in the Job Seeker and the smallest in the Program Completer prototypes, while the largest percentage of Asians is in the Career Changer and the smallest in the Job Up-Grader prototypes. While no information is given in the report about sex differences in the various ethnic groups, the data suggest that older white males tend to characterize the Job Up-Grader prototype, while women, Blacks, and Hispanics are more often in the Job Seeker and Program Completer prototypes.

Disadvantages: Percentages of vocational prototype students who said at entrance that they were financially or educationally disadvantaged were quite small (17 and 15 percent, respectively, compared with 19 percent each for the combined transfer prototypes). As might be expected, the percentages of students reporting either kind of disadvantagement, or both, were larger for Program Completers and Job Seekers than for the other vocational prototypes.

EDUCATIONAL HISTORY

Table 5 presents a summary of the educational backgrounds of students in the vocational prototypes. Significant differences exist between the combined vocational and the combined transfer student prototypes for most variables, as well as significant differences among the four vocational prototypes.

Previous Attainment: The vocational students may be characterized as more likely than the transfer students to have had some college work after high school graduation, received a bachelor's or higher degree before enrolling in the Community College, and enrolled initially in self-enrichment classes.

TABLE 5 Educational Backgrounds of the Vocational Prototypes

Variable	Prototype: Program Completer	Job Seeker	Job Up-Grader	Career Changer	Total
Last School Attended:					
High School	73%	68%	45%	34%	57%
Other Community College	16	17	27	30	22
Four-Year College	7	8	19	26	13
Highest Level Attained:					
High School Diploma	70	65	48	41	58
Some College	20	23	35	35	28
BA or Higher	4	3	12	18	8
Original Goal:*					
Transfer	21	19	13	12	17
Pre-Employment Training	73	67	32	47	53
Inservice Training	4	7	46	13	20
Retraining	3	4	7	16	6
Self-enrichment	10	20	25	27	21

*Students were allowed to list more than one goal.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 5.

When information about original goals is ignored, Program Completers tend to resemble Job Seekers with regard to their educational backgrounds, while Job Up-Graders resemble Career Changers. The differences are, of course, related to the age of students, which differed among the vocational prototypes. The Program Completers and Job Seekers were more likely than the Job Up-Graders and Career Changers to have had no formal education beyond high school, and to be seeking pre-employment training, rather than in-service education and retraining. About half of the students in the latter pair of vocational prototypes had had some college work before enrolling in Fall 1978, often in another Community College, compared with about one-fourth of the former pair.

Reasons for Attending: As might be expected, the vocational prototype students tended to have employment-related, rather than transfer objectives when they first enrolled (79 and 17%, respectively). Percentages of those whose original goal was self-enrichment ranged from 27 for the Career Changers to 10 percent for Program Completers, with an overall percentage of 21, compared to 11 percent for the combined transfer groups.

EMPLOYMENT HISTORY

As was true of their educational backgrounds, the employment experience of the Program Completers resembled quite closely that of the Job Seekers, while that of the Job Up-Graders was quite like that of the Career Changers. A summary of the employment experience of students in each vocational prototype is given in Table 6. The variables include employment status before enrolling in the Community College in Fall 1978 and job level during the first semester of enrollment. Attention is called again to interrelationships of age, previous educational level attained, and employment status, which are not explored in any detail in the final report of the study.

Previous Employment: Almost two-thirds of the Job Up-Graders and Career Changers held full-time jobs before enrolling in Fall 1978, compared with less than one-third of the Program Completers and Job Seekers, who tended to be younger and often still enrolled in high school. In fact, 57 percent of the Program Completers and 44 percent of the Job Seekers were full-time students before enrolling in 1978, compared with 15 percent of the students in the other two vocational prototypes. More than 40 percent of the students in the first pair of prototypes were unemployed before enrolling, compared with less than 20 percent of the latter pair.

TABLE 6 Employment Experience of the Vocational Prototypes

Variable	Prototype: Program Completer	Job Seeker	Job Up-Grader	Career Changer	Total
Previous Status:*					
Full-Time Job	21%	31%	65%	64%	44%
Part-Time Job	32	31	18	13	25
Unemployed	47	40	17	22	31
Full-Time Student	57	44	15	15	33
Part-Time Student	10	10	14	16	11
Fall 1978 Job Level:					
Unskilled	18	19	6	6	13
Semi-Skilled	27	30	31	30	30
Skilled	13	15	37	34	24
Professional/ Supervisory	2	2	15	10	7
Not Employed	37	30	9	15	22

*Subjects may be classified in more than one category, for example, part-time student who was employed full time.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 5.

Some vocational prototype students were, of course, both employed and enrolled elsewhere before Fall 1978. Larger percentages of Program Completers and Job Seekers than Job Up-Graders and Career Changers were both students and workers before Fall 1978, with patterns of part-time and full-time employment and enrollment varying among the four prototypes.

Job Level at Entrance: Students were also asked about their level of employment during the first semester of the study. Of all vocational prototype students, only 13 percent said that they were then working in unskilled jobs, including 19 percent of the first and 6 percent of the second pair of vocational prototypes. The largest difference between these pairs of prototypes is in the percentages holding skilled jobs. About 14 percent of the younger and less-well-educated students in the first pair said that they

were employed in such jobs during their early enrollment, compared with about 36 percent of the older, better educated students in the second pair. The overall rate of employment was also much higher for the second pair of prototypes, with about 90 percent of the Job Up-Graders saying that they were employed during their first semester of enrollment in the Community College.

ENROLLMENT PATTERNS

Information about the three-year enrollment patterns of the students assigned to the vocational prototypes is summarized in Table 7.

The four prototypes are quite distinctive with respect to the enrollment variables, in contrast with their employment history where there appeared to be two pairs of prototypes which were quite similar. They differed significantly with respect to the length of their enrollment, the number of courses passed and units earned, grades, and tendency to enroll exclusively in day classes. Thus their enrollment patterns are discussed separately below. They also differed as a group from the combined transfer prototypes, particularly with respect to length of enrollment: 33 percent of the vocational students enrolled for only one term, compared with 13 percent of the transfers; and 48 percent enrolled for at least two consecutive terms, compared with 66 percent of the transfers. The percentages of vocational and transfer students completing two and three years were 8 and 15, and 9 and 18, respectively.

Program Completers: Students in the Program Completer prototype appear to be the most homogeneous of the four vocational groups, except for their majors which ranged over a variety of occupational fields. The number of courses they passed and units and grades earned were significantly higher than for the other vocational prototypes. More than three-fourths enrolled for at least two consecutive semesters, one-fourth for three full years, and 18 percent for two full years. No information is given in the final report of the study about the number of associate degrees and certificates awarded these students, but the number of courses passed and units earned make it appear that length of enrollment may be an unreliable measure of such awards. Two-thirds of the Program Completers enrolled exclusively in day classes, about 80 percent were in occupational majors, and 87 percent earned grade-point averages above C (2.1 or better).

Job Seekers and Up-Graders: In contrast to the Program Completers, 40 percent of the Job Seekers and Up-Graders enrolled for only the first term, another 40 percent for at least two consecutive terms, and about 20 percent intermittently after the first semester. Only 10 percent completed two or three years of Community College work

TABLE 7 Enrollment Patterns of the Vocational Prototypes

Variable	Prototype: Program Completer	Job Seeker	Job Up-Grader	Career Changer	Total
Length of Enrollment:					
First-Term Only	6%	40%	40%	29%	33%
First Two Terms Only	11	20	17	21	17
Two Years Only	18	6	6	8	8
Three Full Years	25	4	5	10	9
At Least Two Consecutive Terms	78	43	39	53	48
Intermittent Enrollment	16	17	21	18	19
Day Classes Only	67	51	24	30	42
Original Major:					
Business/Management	22	37	35	31	33
Engineering and Related Fields	15	16	18	15	16
Health Occupation	15	5	7	7	8
Other Occupation	29	25	22	22	24
General Transfer	14	11	11	18	12
Personal Interest	5	7	7	7	6
Mean Number of Courses Passed:	13.5	4.3	3.5	4.7	5.5
Mean Number of Units Earned:	39.2	11.8	9.9	14.0	15.7
Grade-Point Average:					
Percent Above C (2.1)	87	69	79	76	77
Percent D and Below	2	8	5	3	5

Source: Adapted from the SLS Final Report, 1978-81, Chapter 5.

after enrolling in Fall 1978. They completed an average of four courses during the three-year period of the study and earned an average of about 11 units, with about three-fourths of the grade-point averages above C. More than 80 percent of their majors were in some occupational field, with slightly more than one-third in Business and Management.

Career Changers: By far the smallest of the four vocational prototypes, Career Changers resembled the Program Completers less than the other vocational prototypes but were more likely than the Job Seekers and Up-Graders to complete more semesters of work and earn more units during the three years of the study. A higher percentage (18) were in a General Transfer major than was found for the other vocational prototypes, but only 30 percent were enrolled exclusively in day classes.

EFFECTS OF THE COLLEGE EXPERIENCE

Vocational prototype students were asked in interviews to answer questions and make judgments about the impact of the vocational training they received at the Community College on their career experience. More specifically, they were asked how closely their studies were related to the jobs they held; how helpful the studies were in getting better jobs, raises, and promotions; what changes had taken place in job skill level and salary during the study; and their evaluation of both their training and the college in general.

Relations of Job to Studies: About half of the vocational prototype students were interviewed about the relationship of their studies to their job in 1980-81. Forty-six percent of the combined vocational prototypes said that there was "a great deal" of relationship and 21 percent said "not at all." Some differences were found among the four prototypes, with 44 percent of the Career Changers (the smallest group) reporting no relationship at all, compared with 10 percent of the Job Up-Graders (the largest group). At the other end of the scale, about 53 percent of the Program Completers and Job Up-Graders reported a great deal of relationship, compared with 35 percent of the Job Seekers and 26 percent of the Career Changers.

When data from several interviews conducted during the course of the study were combined by recording the highest (best) response, 57 percent of the vocational prototype students saw a great deal of relationship between their job and studies at some time in the study, 23 percent saw some relation, 3 percent saw a slight relationship, and 17 percent saw none at all (ibid., pp. 5-27, 28).

Job Changers: Samples of between 25 and 43 percent of the vocational prototype students were interviewed about changes in jobs held one year after enrolling, the following spring, and again the following year. After one year, 53 percent of the combined groups said that they held the same job (or same level of job) as they had reported at the beginning of the study, while 45 percent said that

they held better jobs. One semester later, 68 percent of a much smaller interview sample said that they held the same job or level of job as in the previous interview and 30 percent said that they held better jobs. In the final interview in 1980-81, with a larger sample than in Spring 1980, 67 percent said that they held the same job or level of job, 28 percent held better jobs, and 5 percent said "worse" jobs.

Differences among the prototypes were found which are related to the students' objectives and length of enrollment in the Community College. One year after the study began, the highest percentage of students saying that they had better jobs was found for the Job Seekers prototype; the following spring, for the Job Up-Graders and Job Seekers; and the following year, for the Program Completers and Job Seekers. Two years after the start of the study, 10 percent of the Career Changers said that they had worse jobs, compared with less than 5 percent of the other prototypes (ibid., p. 5-30).

Changes in Occupational Status: Changes over time in the occupational status of the vocational students are summarized in Table 8 for the four prototypes and the combined groups. Percentages represent group responses at the time of each interview, with about 30 percent fewer students in the second interview than in the first. While there were fewer students in each prototype in the 1980-81 interviews than at the beginning of the study, representation in the Job Seeker group decreased by 9 percentage points and representation in the other groups increased proportionately. For the combined groups, the largest shifts in occupational status during the study were out of the unskilled category and into the semiskilled or skilled categories. The percentage in the semiskilled category remained about the same since Program Completers and Job Seekers were moving into the category while Job Up-Graders and Career Changers were moving up into the skilled category.

The "other" category includes unemployed who were homemakers, students, and former students, as well as other unclassifiable responses. The decrease in "others" between fall 1978 and 1980-81 is attributable to the decline of 10 percentage points in the unemployed student category, which was balanced in part by the addition of a category of unemployed former students which comprised 6 percent of the combined vocational prototype students in 1980-81. The relatively high incidence of Program Completers in the "other" category in 1980-81 can be accounted for at least in part by students who were still enrolled in vocational programs who were not also employed. The Job Seekers in the "other" category, however, included relatively large percentages of unemployed former students and homemakers, as well as students who were not employed at that time. The other data in Table 8 appear to be quite self-explanatory.

TABLE 8 Changes in the Occupational Status of Vocational Prototype Students, Fall 1978 to 1980-81

Occupational Level	Year	Program Completer	Prototype Job Seeker	Prototype Job Up-Grader	Prototype Career Changer	Total
Unskilled	Fall 1978	18%	19%	6%	6%	13%
	1980-81	3	8	2	5	4
Semi-Skilled	Fall 1978	27	30	31	30	30
	1980-81	34	37	22	25	29
Skilled	Fall 1978	13	15	37	34	24
	1980-81	29	24	53	43	39
Professional	Fall 1978	2	2	15	10	7
or Supervisory	1980-81	5	2	16	14	10
Other	Fall 1978	40	34	11	20	25
	1980-81	29	29	7	13	18
Number in	Fall 1978	331	806	770	188	2,095
Sample	1980-81	280	419	582	155	1,436

Source: Adapted from the SLS Final Report, 1978-81, Chapter 5.

Increased Earnings: As might be expected, vocational students in all prototypes reported increases in mean hourly wages between Fall 1978 and 1980-81. The mean for the combined groups was $5.15 for the 54 percent of the sample from which information was obtained in 1978, and $7.54 for the 43 percent sample in 1980-81. The largest increase in mean hourly wages was found for the Job Up-Grader group, which also had the highest means at both interview times. Interpretation of the increases is difficult, however, since they were not expressed in terms of constant dollars, and different samples of students were interviewed at each point.

Student Ratings: All but 11 percent of the vocational students interviewed a year after they first enrolled said that their Community College courses had been helpful and related to their jobs in some way. Almost two-thirds said that they had learned skills which were a part of their jobs, and 12 percent said that they had been completely trained for their jobs by the Community Colleges.

The next semester, Spring 1980, about one-fourth of the vocational students were again interviewed to find out how their studies had helped them with their careers with respect to getting a job, performing on the job, and getting a raise or promotion. About 50 percent of those interviewed said that their courses had helped their performance on the job a great deal, while 26 percent said that they had helped in getting a job. One-half or more of the students in each vocational prototype said that their coursework had been of no help in getting a job. Fewer than 20 percent found that their coursework helped a great deal in getting a raise or promotion and 62 and 70 percent, respectively, said that they had not been helped at all. The Program Completers appear to have been helped most in getting jobs, while the Job Up-Graders were helped most in their performance on the job and in getting raises and promotions.

During the final data collection period, a 40 percent sample of vocational students was asked if their Community College training had helped them advance in their careers and, if so, how. Thirty-nine percent responded in the negative, including about 40 percent of the Job Seekers and Up-Graders but only 29 percent of the Program Completers. The kind of help mentioned most often was in getting a job (16 percent), with Program Completers and Job Seekers giving the answer most often. Percentages ranging from 8 to 10 for the total group said that their training had been helpful in getting employer praise, raises or promotions, and both.

Finally, vocational students were asked to rate the training they received and the college generally. Seventy-six percent rated their training as "very good" and only 2 percent as "not good." Job Seekers gave the poorest ratings to their training and Career Changers the best. In rating their college, 84 percent gave a rating of "very good" or "excellent" and only 5 percent rated it "poor but passing" or "failing," or were unsure. More than 80 percent of the students in each prototype gave their colleges high ratings, although the Job Up-Graders were least sure about how to grade it.

Future Plans: Equal percentages (39) of vocational students said that they did and did not intend to finish their programs and 12 percent said that they had done so already. Program Completers had the highest percentage planning to finish (58) and Job Seekers and Job Up-Graders the lowest (about 46 percent of each group).

CHAPTER FIVE

THE SPECIAL INTEREST FUNCTION

Three of the six special interest prototypes--Hobbyist, Culture Seeker, and Education Seeker--were combined to yield a Leisure Skills prototype which accounted for 72 percent of the students assigned to this special interest function. The three remaining prototypes are Lateral Transfer (3 percent), Basic Skills (11 percent), and Explorer/Experimenter (14 percent). The relatively small numbers of students assigned to these last three prototypes make the reliability of findings about them somewhat suspect. Because findings for all four special interest prototypes are presented in detail in the final report of the study, they will be reproduced here in a fashion similar to those presented earlier for the transfer and vocational prototypes, with caution given about generalizations from the small sample of the latter three of the special interest prototypes.

PERSONAL CHARACTERISTICS

Table 9 presents summary information about the personal characteristics of students assigned to the four special interest prototypes. There appear to be significant differences among the four prototypes with respect to most characteristics which may be attributable to the small sample for some prototypes.

Male/Female Ratio: The proportion of women is highest for the special interest group--62 percent in the combined prototypes, and 72 percent in the Explorer/Experimenter prototype. The smallest percentage of women (54) was found in the Basic Skills prototype, but it is only slightly less than the 55.5 percent in the total study sample.

Age: The mean age of the combined special interest prototypes was the highest of the three major functions, primarily because of the high mean age (32 years) of the dominant Leisure Skills group. Only 20 percent of the students assigned to the Leisure Skills group were under the age of 20 at entrance, while 47 percent were at least 30 years of age. The Lateral Transfers were the youngest group and resembled the combined transfer groups on several measures, while differing with respect to educational disadvantagement.

TABLE 9 Personal Characteristics of the Special Interest Prototypes

Characteristics	Prototype: Leisure Skills	Lateral Transfer	Basic Skills	Explorer/ Experimenter	Total
Percent in Group*	72%	3%	11%	14%	100%
Male/Female Ratio	38/62	35/65	46/54	28/72	38/62
Mean Age	32	21	25	26	30
Percent Under 20	20	61	38	44	27
Percent 30 and Over	47	7	24	27	40
Percent Ethnicity:					
White	77	70	28	74	72
Black or Hispanic	16	25	53	18	20
Asian	5	4	14	6	6
Percent Disadvantaged:					
Financial	11	18	33	14	13
Educational	14	31	52	14	18

*Special Interest prototypes comprise 27 percent of the total sample students.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 6.

Ethnicity: The special interest prototypes also differed markedly with respect to the distribution of the various ethnic groups in each. The largest percentage of white students was found in the Leisure Skills prototype, among the four special interest prototypes, while Blacks and Hispanics were found there least frequently. In general, white students were notable for their low frequency in the Basic Skills prototype, while Hispanics and, to a somewhat lesser degree, Blacks had a high percentage in that prototype. Asians were also found frequently in the Basic Skills prototype, because of their need to learn English as a second language, and least often in the Lateral Transfer group, for reasons which were beyond the scope of the study.

Disadvantages: Finally, the Basic Skills prototype students differed from the other three with respect to the high percentage who said that they had financial or educational disadvantage or both. More than half of these students said that they had an educational disadvantage, which is consistent with the description of the prototype, and one-third reported some financial disadvantage. Almost one-third of the Lateral Transfers also said that they were educationally disadvantaged, many of whom were apparently trying to overcome their deficiencies before enrolling in another, probably more expensive institution than the Community College. The final report of the study notes that the major wave of refugees from Southeast Asia came after the start of study, and that the incidence of students in this special interest prototype might be different if the study had been initiated in the 1980s. In any case, the four special interest prototypes appear to be more heterogeneous with respect to their goals and related characteristics than students assigned to either the transfer or vocational prototype.

EDUCATIONAL HISTORY

A summary of the educational background of students assigned to the special interest prototypes is presented in Table 10.

Previous Attainment: The previous education of these combined special interest groups is least like the transfer prototype in that they tend to have had more education beyond high school than the transfers, in both Community Colleges and four-year institutions. As a group, they also had more postsecondary education than the vocational prototype students, probably in four-year institutions but short of receiving a baccalaureate degree. However, there were vast differences in the educational backgrounds of students assigned to the four special interest prototypes. The Leisure Skills students--by far the largest of the prototypes--were also the most highly educated, in terms of their having attended and sometimes graduated from four-year institutions. One-fourth had attended and 17 percent had graduated from a college or university with at least a baccalaureate degree. The Lateral Transfer prototype, on the other hand, had the largest proportion of students whose formal education did not extend beyond high school.

Certain categories of educational enrollment and attainment were ignored in the discussion concerning students assigned to the transfer and vocational prototypes because of the low incidence of students in these categories. They appear to be of greater significance for the combined special interest groups and for certain prototypes in this grouping. With respect to previous educational

TABLE 10 Educational Backgrounds of the Special Interest Prototypes

Variable	Prototype: Leisure Skills	Lateral Transfer	Basic Skills	Explorer/ Experimenter	Total
Last School Attended:					
High School	44%	72%	67%	59%	49%
Other Community College	23	17	11	17	21
Four-Year College	25	9	6	17	21
Highest Level Attained:					
High School Diploma	40	63	51	59	45
Some College	34	28	19	27	31
BA or Higher	17	2	2	9	14
Original Goal:*					
Transfer	12	55	24	26	16
Pre-Employment Training	18	50	33	29	21
In-Service Training	8	8	10	6	8
Retraining	3	<1	1	3	2
Self-enrichment	75	7	48	54	67

*Students were allowed to list more than one goal.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 6.

attainment, 29 percent of the Basic Skills prototype and 11 percent of the combined special interest groups were not high school graduates, compared with 6 percent of the transfer and 7 percent of the vocational groups. Furthermore, the percentage of special interest students who said that they had last attended either an adult night high school or some other type of educational institution than a high school or college was higher than was found for the transfer and vocational students. Among the special interest prototypes, Basic Skills students had the largest percentage response in both the adult school and "other" educational categories.

Reasons for Attending: Fully two-thirds of the special interest students were judged to have goals related to self-enrichment at

the beginning of the study, including 75 percent of the students in the Leisure Skills prototype. The major exception to this characterization was the Lateral Transfer students (the smallest of all prototypes), about half of whom had transfer and another half employment-related goals. About one-half of the Basic Skills and Explorer/Experimenter students had initial goals related to self-enrichment, but more than half had goals related to either transfer or pre-employment training. Ten percent or fewer of each of the special interest prototypes were interested in in-service or re-training programs in the Community Colleges.

EMPLOYMENT HISTORY

Students assigned to the combined special interest prototypes were more likely to have been employed, particularly full time, and less likely to have been enrolled as full-time students prior to 1978 than the transfer students. A summary of their employment experience appears in Table 11.

Previous Employment: About two-thirds of all special interest students were employed before they enrolled in Fall 1978, about one-third were students elsewhere, and one-third were not employed. Twenty-two percent had been both employed and enrolled elsewhere, a majority of them in part-time jobs.

Students assigned to the Lateral Transfer prototype were least typical of the special interest groups but, with only 45 students in the sample, any characterization of the group with respect to its previous occupational status may not be reliable. For each of the other special interest prototypes, however, the largest percentage was found for the category of "full-time job only" before enrollment in Fall 1978. Relatively small percentages of these three prototypes were employed and enrolled part time, or neither employed nor enrolled in any kind of institution. The percentage of unemployed homemakers varied among the prototypes, with 14 percent obtained for the combined special interest groups.

Job Level at Entrance: Compared with the combined vocational prototypes, the special interest groups contained a larger percentage of students employed at the professional or supervisory level, and smaller percentages at the skilled and semi-skilled levels, at least during the first term of the study. A larger percentage of special interest students were not employed, while equal percentages of these and vocational prototype students were employed in unskilled jobs. Professional or supervisory employees were for the most part assigned to the Leisure Skills prototype. The Leisure Skills group also had the largest percentages of students who were

TABLE 11 Employment Experiences of the Special Interest Prototypes

Variable	Prototype: Leisure Skills	Lateral Transfer	Basic Skills	Explorer/ Experimenter	Total
Previous Status:*					
Full-Time Job	49%	27%	44%	34%	46%
Part-Time Job	19	29	22	31	21
Unemployed	32	44	34	35	33
Full-Time Student	19	47	35	40	24
Part-Time Student	11	18	6	11	10
Fall 1978 Job Level:					
Unskilled	11	13	16	17	13
Semi-Skilled	21	44	31	30	24
Skilled	21	7	16	15	19
Professional/ Supervisory	14	2	2	7	12
Not Employed	26	33	33	28	27

*Subjects may be classified in more than one category, for example, part-time student who was employed full-time.

Source: Adapted from the SLS Final Report, 1978-81, Chapter 6.

skilled workers assigned to it, while the Basic Skills and Explorer/Experimenter prototypes had relatively large percentages of semi-skilled worker/students assigned to them. The findings about the occupational levels of the special interest students are not highly significant because of the diversity of student interests and goals encompassed by this set of prototypes, and the small number of students in three of the four groups.

ENROLLMENT PATTERNS

The enrollment experience of the special interest students during the three years of the study is summarized in Table 12.

TABLE 12 Enrollment Patterns of the Special Interest Prototypes

Variable	Prototype: Leisure Skills	Lateral Transfer	Basic Skills	Explorer/ Experimenter	Total
Length of Enrollment:					
First Term Only	51%	26%	53%	42%	49%
First Two Terms Only	15	24	15	17	16
Two Years Only	4	17	4	5	4
Three Full Years	3	2	2	5	3
At Least Two Consecutive Semesters	30	56	30	35	32
Intermittent Enrollment	19	18	17	23	19
Day Classes Only	33	60	50	44	37
Original Major:					
General Transfer	16	36	27	31	20
Business/ Management	17	22	14	18	17
Engineering and Related Fields	9	2	12	5	9
Other Occupational	16	18	8	17	16
Personal Interest	42	22	40	29	39
Number of Courses Passed: Mean	2.4	6.7	3.1	3.7	2.8
Number of Units Earned: Mean	5.6	18.9	7.7	8.8	6.6
Percent Above C (2.1)	77	78	60	70	75
Percent D and Below	7	2	8	5	7

Source: Adapted from the SLS Final Report, 1978-81, Chapter 6.

Length of Enrollment and Achievement: As might have been expected, a much larger percentage of the special interest students than transfer or vocational students enrolled for only the first semester and a smaller percentage for two or more consecutive terms (or two or three full years). The mean numbers of courses passed and units earned were less than those achieved by the other groups; grades were only slightly lower. In short, except for the small number of Lateral Transfers, the special interest students often achieved their short-term objectives in one semester and had only one chance in five of enrolling intermittently during the three-year period of the study. In the latter pattern, they resembled the transfer and vocational prototypes.

The enrollment patterns of the Leisure Skills, Basic Skills, and Explorer/Experimenter students appear to be quite similar with respect to length and pattern of attendance, with the Explorer/Experimenter students slightly more likely to enroll for more than one semester, either intermittently or in consecutive semesters. In a related finding, the mean numbers of courses they passed and units they earned were slightly higher than were found for the Basic and Leisure Skills prototypes, although each of the means for the three-year experience was less than a full-time student would be expected to earn in one semester. Since their grades were generally satisfactory, the relatively low accumulation of units may be attributable to withdrawals from classes without penalty when students had achieved their own objectives. Percentages of units for which passing grades were awarded during the study ranged from 59 for the Basic Skills to 71 for the Explorer/Experimenter groups (83 for the very small number of Lateral Transfers), or 65 for the combined groups.

Time of Enrollment: Special interest prototypes were less likely than vocational and transfer students to enroll exclusively in day classes. In fact, only 37 percent did so, including one-third of the dominant Leisure Skills group.

Original Major: The Fall 1978 majors of the special interest groups are of particular interest because of the minority in each group which was judged to have been enrolled in programs of personal interest. Thirty-nine percent of the combined groups were in such programs, including about 40 percent of the Basic and Leisure Skills students and 29 percent of the Explorer/Experimenter group. More than one-fourth of the Basic Skills and Explorer/Experimenter groups had General Transfer majors, while the Leisure Skills students distributed themselves across a variety of transfer and occupational programs. The range of programs or majors into which the special interest students were classified on the basis of their course enrollments is further evidence of the wide diversity of their interests and objectives, compared with the transfer and vocational students.

EFFECTS OF THE COLLEGE EXPERIENCE

During the final data collection in 1980-81, the special interest students were interviewed with respect to the kinds of benefits they received from the Community College experience, their future plans for enrollment, changes in their goals, and their satisfaction with the experience.

Student Ratings: Only 4 percent of the students said that they had received no benefits, 9 percent reported no goal satisfaction, and 7 percent rated the college from "unsure" to "failing." The special interest students for the most part gave their college experience very high ratings, for example, 80 percent saying that it was "excellent" or "very good," and 55 percent saying that there had been complete goal satisfaction.

Students were allowed to list two kinds of benefits in their interviews and many did, particularly in the Basic Skills prototype where 79 percent said that a major benefit was basic skills. For the combined special interest groups, the largest percentage (33) reported "home or hobby skills" benefits, followed by "know about the world" (20 percent), "exploring for future" (17 percent), "sports or body condition" (17 percent), and "artistic production" and "basic skills" (each 14%). Lateral transfer preparation and "cultural exposure" each had 5 percent or less of the students citing it as a benefit.

Stability of Goals: Seventy-seven percent of the special interest students said that their goals had remained the same after enrolling in Fall 1978. The percentages did not differ among the prototypes, except for the Lateral Transfers, of whom only 17 could be interviewed with respect to this question.

Future Plans: About two-thirds of the special interest students either did not expect to enroll again or were unsure about their plans. Nineteen percent--mostly students in the Leisure Skills prototype--expected to enroll for four or more additional semesters. Numbers of students in the other prototypes who were interviewed in this regard were too small to warrant comparison.

CHAPTER SIX

INTERPRETATION OF FINDINGS AND CONCLUSIONS

The first four published reports of the Statewide Longitudinal Study and the first six chapters of the Final Report were prepared by Sheldon and, in the case of the earlier reports, by Hunter and Sheldon as descriptive documents setting forth the major quantitative findings of the fifteen-college, three-year study. The preceding five chapters of this report are an honest attempt to summarize those findings in a generally uncritical, objective fashion. In the last chapter of the Final Report, Sheldon moved out of his role of objective reporter of the data and speculated in a personal way about the meaning of some of the findings and the shortcomings of the data collection. This final chapter of the Commission report attempts to summarize Sheldon's cogent insights into the data and findings in a manner which implies neither support for nor disagreement with his insights and conclusions therefrom.

DATA PROBLEMS

The study began with a sample of almost 8,000 Community College students and ended with 6,490 because of decisions by Sheldon and Hunter at various times to drop students from the study who did not meet certain criteria related to data collection. Numbers also vary for subsets of the sample because different kinds of questions were used in the structured interviews with different types of students. Variations in numbers throughout the reports were thus caused by decisions during the study about sampling, variability in the proportion of the sample interviewed, and an "error correction cycle" whose description is beyond the scope of this report. In any case, Sheldon argues convincingly in his final report that the representativeness of the sample was not seriously impaired by purging.

Sheldon suggests that another source of error is the unknown number of mistakes made in prototyping students. An acceptable level of reliability was achieved in the process but questions of validity remain unanswered by the study. He calls attention to large differences among the colleges in the proportions of students assigned to the less prestigious prototypes and finds that "in colleges where one might reasonably expect to find an average or above average number of the less prestigious prototypes, few students were assigned to these categories" (p. 7-5). At the same time, he concludes that the data in a sense validated the assignments made to the prototypes in the vast majority of cases.

FINDINGS ABOUT THE TRANSFER FUNCTION

Sheldon agrees with a University of California report (1980) which found that fewer Community College students were transferring to the University now than a decade ago but rejects the reasons it gave for the decline, including neglect of the transfer function. He notes that the number of high school graduates has been declining and suggests that the universities may now be trying harder to recruit recent high school graduates. He also asserts that fewer Community College students with transfer goals are university-eligible as freshmen than in the past.

Sheldon recommends the use of the Full-Time, Part-Time, and Technical Transfer prototypes in estimating percentages of students who transfer. He interprets the data so as to conclude that "those who come to community colleges with a modicum of academic ability and the intent to transfer to the university represent about a quarter of first-time students in a fall semester. Of those, 50 percent to 60 percent will transfer" (p. 7-8). Furthermore, he concludes that fewer students are transferring because there are fewer whose goal is to transfer, but that those who want to transfer and have some reasonable academic competency are as well served by Community Collleges as they were a decade ago.

Sheldon expresses his view that the percentage of students assigned to the Undisciplined Transfer prototype was in reality too small because of the reluctance of some study coordinators to make this assignment. He estimates that the true percentage should have been 33 to 35, rather than 28 percent of the transfer prototype students. He also notes the assignment of students with transfer aspirations to the Basic Skills prototype in the special interest grouping, commenting that he has seen no evidence that high school graduates reading at the sixth grade level could be "transformed into even a mediocre college freshman" in a reasonable amount of time by a community college (p. 7-9).

Sheldon ends his discussion of the transfer function with a recommendation that the Community Colleges adopt a systemwide measure of student intent and an assessment program that would reduce the time and money now spent on lower levels of remediation by screening such students (p. 7-10).

FINDINGS ABOUT THE VOCATIONAL FUNCTION

Sheldon agrees with the findings of other studies that Community College students do not complete vocational programs (Wilms, 1980;

Pincus, 1981), but points out that fewer than one-fourth of the vocational students plan to complete programs. He also states that most vocational students do not identify with programs but enroll, instead, for specific courses to learn specific skills (p. 7-10).

He finds that the Job Up-Graders responded most positively among the vocational prototypes to what the Community Colleges offered. He also finds that the Job Seekers, who wanted to learn skills and obtain employment quickly, were not as enthusiastic about what the Community Colleges did for them (p. 7-11).

Finally, Sheldon concludes from the data that "community college students had better jobs, requiring higher skills and demanding higher pay, than when they first enrolled," and that their enrollment was largely responsible for their career improvement (p. 7-11).

FINDINGS ABOUT THE SPECIAL INTEREST FUNCTION

Sheldon asks whether the large proportion of the special interest students who are Hobbyists, Culture Seekers, and Education Seekers (the Leisure Skills prototype) should be enrolled in credit courses at taxpayer expense. He points out that they tend to be older and white, with at least some previous college experience. At the same time, he notes that while the Leisure Skills students were one-fifth of the entering class, they were a considerably smaller proportion of a cross section of the student body because of their usually short period of enrollment, and thus represent a very small proportion of the Weekly Student Contact Hours (WSCH) (p. 7-12). He also acknowledges the difficulty of the task of sorting out the Leisure Skills from the Transfer and Vocational students in courses such as automotive tune-up.

Sheldon also expresses concern about the appropriateness of accommodating some Basic Skills students in the Community Colleges, pointing out that the skills they need are often taught by adult evening schools at considerably less cost to the State. At the same time he concludes that "recent emigrants and high school graduates with mild and reasonable learning deficiencies, whose intent is to seek further education, should certainly be assisted by the community colleges" (p. 7-13). Finally, he asks the question: how basic is basic, with respect to the Community College curriculum?

OTHER FINDINGS

In summary, Sheldon finds that "the community colleges have done an excellent job in helping students in each of the three major func-

tions," although more needs to be known about certain former students in the transfer prototypes who did not transfer, Job Seekers who did not learn the skills to get the jobs they wanted, and Basic Skills students who did not finish the courses in which they were enrolled (p. 7-14). He also finds that both traditional and new tasks are still being carried out satisfactorily by the Community Colleges, and that the students so served rate their colleges highly.

CONCLUSION

Sheldon's final conclusion follows (pp. 7-21, 7-22):

> The general conclusion from the findings presented earlier in this report is: California Community Colleges have diversified, they have incorporated into their educational offerings any courses or programs needed by their communities. As long as there are funds to support the offerings, the colleges are largely successful. If the reports of the students are valid, this diversification has not deterred the quality of the offerings.
>
> However, with severe cuts being made in the college budgets, fewer publics can be served. California citizens, speaking through the Legislature, may well determine that community colleges should limit their offerings, and that they should NOT serve Leisure Skills Students, foreign students who need English skills, or day students whose academic skills are too low to be improved sufficiently for college work.

APPENDIX

Summary of Major Findings From Through the Open Door: A Study of Patterns of Enrollment and Performance in California's Community Colleges (California Postsecondary Education Commission Report 76-1, February 1976, pp. i-ix)

Findings about the extent to which the California Community College system is fulfilling its purposes and achieving its objectives:

Community College enrollments continue to grow at a rate exceeding projections, in part as a result of the development of programs and services for new student clienteles. These include the educationally and economically disadvantaged, the physically handicapped, women reentering postsecondary education, senior citizens, workers needing training for relicensing, and high school students who can profit from college courses. Between 1969-74 growth of enrollment of part-time students in credit courses was three times greater than that found for full-time students with total enrollments in both credit and non-credit courses growing 57 percent during the five-year period.

The enrollment increases have brought about fundamental changes in the composition of the student body of the Community Colleges, with a concomitant change in the emphasis placed on the various functions performed by the colleges. Part-time students now comprise two-thirds of the headcount enrollment. Students at least 21 years of age who are enrolled part time account for nearly half the students in credit courses.

The part-time, older students come with their own objectives relating to educational, career, and personal growth which often are achieved outside degree and certificate programs. They tend to enroll on an intermittent basis, that is, skipping semesters and enrolling in other institutions offering postsecondary programs. Although enrolled in courses offered for credit, they sometimes forego credits and grades on the grounds that they have no need for certification. Many already hold baccalaureate and advanced degrees but find courses in their local Community Colleges which satisfy a wide range of individual interests. The definition of Community Colleges as two-year institutions offering lower division courses and programs is no deterrent to the countless adults who seek opportunity for continuing education and cannot leave their home communities to enroll in four-year institutions, or cannot afford to pay tuition and fees charged by other types of institutions.

Thus, continuing education for part-time, adult students has become the dominant function of the Community Colleges, with no resultant neglect of the occupational, transfer, and general education functions for more traditional students.

Findings about student accounting:

Definitions of students and procedures for counting them do not reflect adequately the complex nature of the new student clienteles and the idiosyncratic nature of their objectives. Students must enroll for credit in credit courses and are expected to attend through the entire semester or quarter, irrespective of their objectives, initial competencies, and/or rates of learning.

Community College students are now earning an average of 64 units of credit per 100 units for which they are enrolled in the first census week. Those who enroll only once or intermittently complete an average of 37 units of credit per 100 of enrollment, compared with an average of more than 80 earned by students exhibiting more traditional patterns of enrollment. A number of reasons for low rates of course completion for credit have been found in the various analyses of student behavior:

1. Students may not have perceived themselves to be enrolled for credit since they had no need (or desire) for credits and grades. Their records showed W, NCR, and/or F for noncompletion of courses in which they did not expect to earn credit.

2. Students may have achieved their own (and often the course) objectives before the end of the semester but had no way to demonstrate their achievement if they did not take final examinations and/or attend to the end of the course. Their records also showed W, NCR, and/or F as final grades.

3. Students may have registered for courses but were not actually enrolled at the census week in some or all of the courses shown on their records. In some cases, preregistration that took place before the beginning of the term was not canceled.

4. Students may have been unable to achieve course objectives at a satisfactory level by the end of the semester or quarter, with the result that they requested that the final grade be recorded as W or NCR, rather than risk a poor or failing grade.

5. Students may have been taking Community College courses while matriculated at other types of postsecondary institutions, either concurrently or on an intermittent basis. Conflicts in scheduling, for example, semester versus quarter calendars, sometimes made it impossible for such students to complete their Community College courses.

It should be noted that the Community Colleges are beginning to move in directions consonant with the recommendations in this report, by instituting a second census week for checking student enrollments and by planning a pilot project in six districts which will permit experimentation with flexible scheduling and variable course credit.

Changes in patterns of enrollment resulting from increases in nontraditional students in the Community Colleges have produced still another problem of student accounting which has implications for projecting enrollments. The analysis of student records has shown that some students reported as new to a particular college had in fact been enrolled for one or more previous semesters or quarters. Their classification as "new students" was apparently made on the grounds that they had earned no credit, although they had been enrolled for credit at the census week and permanent records had been made for them showing the courses in which they were enrolled. The practice appears to vary among the colleges in the study.

Findings about grades and the reporting of grades:

Like other postsecondary institutions, Community Colleges have adopted significant reforms in grading during the past several years which have resulted in a reduction in the number of penalty grades awarded (F and WF). At the same time, Community Colleges have exercised the autonomy given them by the Board of Governors with respect to developing local grading policies and practices within minimum guidelines contained in Title 5 of the Administration Code. Both grading and conditions for academic probation and dismissal are subject to local options. As a result, some grade symbols--particularly W, NC, NCR, and F--have different meanings as recorded on student records by different Community Colleges. Problems arise from a lack of clarity concerning the conditions under which various symbols are used, and also from observed differences between policies published in college catalogs and practices in posting grades on student records.

There has been no finding that certain grading policies/practices are "good" and others "bad," nor has there been any

conclusion that differences among the colleges are undesirable in this area of local autonomy. However, the observed differences in practices have brought about two problems relating to fairness to students who are subject to them. The first is a problem of interpretation by employers and others who may be evaluating students on the basis of transcripts from colleges which differ with respect to the use and meaning of various grade symbols. The second problem is one of fairness to students with respect to opportunities to enter specialized programs where there is competition for student spaces, to transfer to a baccalaureate institution, and in some cases to remain in college in good standing and to meet graduation requirements. Differences among the colleges in the use of penalty grades (F and WF), the imposition of probation and dismissal, and the recording of penalty grades and actions on student records appear to have resulted in unequal opportunities being afforded students in different colleges which have a common mission to provide opportunities for students to pursue postsecondary programs.

Analysis of catalog statements and transcripts of student records has also shown that two types of students do not appear to be subject to probationary and dismissal action for unsatisfactory performance at some colleges in the study. Part-time students--already a majority in the Community College population--constitute one group to which standards for probation and dismissal do not apply on some campuses.

The second group involves students who earn few or no letter grades, that is, whose grades are predominantly CR, NCR, and W. Standards for probation and dismissal have traditionally been based on letter grades (A, B, C, D, and F) and grade-point averages computed from them. With the disappearance of grades of D and F from most transcripts, few students are put on probation under the old standards.

Finally, there is widespread agreement among Community College administrators and staff that grades are often an inappropriate indicator of quality of performance, particularly on the part of new student clienteles. At the same time, no alternatives to grades and grade-point averages have been developed which could be put to use at this time, particularly for nontraditional students. An approach which appears to offer promise would involve evaluating students in terms of their own educational, career, and/or personal objectives, taking into account the students' need to change their objectives on the basis of experience. Neither staff nor techniques for measurement are available at this time which would make it possible to use this approach to evaluating student performance.

Other Findings:

Efforts to find out from the Community Colleges about the volume and nature of transfer to the University of California and the State University and Colleges were quite unsuccessful. In the State University and Colleges system, annual reports to the Community Colleges about their transfer students are a responsibility of individual campuses at this time, with considerable variation in the nature of the reports which have been made. The University of California appears to make reports of transfer students on a more regular basis, but many Community Colleges were unable to provide information from such reports for use in the study.

At the same time, it has become clear that the volume of intersegmental transfer of all types is quite large and probably growing; for example, from four-year to Community Colleges and between four-year institutions. Furthermore, transfer from Community Colleges to independent colleges and universities is likely to increase as additional student aid becomes available.

Faculty and staff in the Community Colleges have for the most part been educated in fairly traditional ways: for example, in master's degree programs in their discipline in the State University and Colleges, in credential programs for secondary school teachers, or, in the case of some instructors in occupational fields, while employed in the area of competency in which they teach, supplemented by a short-term, special preparation program. Change in the nature of the faculty and staff has been considerably less than that found in the student body during the past several years, in terms of the latter's objectives, life experiences, motivation, and other characteristics related to their enrollment. Staff development programs are important in helping faculty and staff adjust to the successive new student clienteles which are enrolling in the Community Colleges.

The findings of the study tend to affirm the wisdom of State policy giving as much autonomy to the Community Colleges as is possible. The communities which the colleges serve differ widely with respect to their present and potential student clienteles, availability of other opportunity for postsecondary education, and feelings about what their local college ought to be and do. State laws and regulations provide guidelines for local action; regional accreditation provides checks on the reasonableness and efficacy of locally developed programs and policies. Still, since the California Community Colleges have been entrusted by the State to provide postsecondary

education opportunity for the vast majority of the citizens who seek it in publicly supported institutions, there appears to be a need to insure that individuals are not unduly disadvantaged with respect to opportunities for continuing education as a result of residing in a particular Community College district.

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